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SN 11/723,075
Docket No. S-102,315
In Response to Office Action dated October 24, 2007

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LISTING OF CLAIMS

1. (Original): A hydrocarbon sensor comprising:

an electrolyte body having a first electrolyte surface with a reference electrode depending therefrom;

a metal oxide electrode body contained within the electrolyte body and having a first electrode surface coplanar with the first electrolyte surface, wherein the electrolyte body is compressed and sintered about the metal oxide electrode body for intimate contact therebetween.

2. (Original): The hydrocarbon sensor according to Claim 1, where the metal oxide electrode body is formed from $\text{La}_{1-x}\text{A}_x\text{CrO}_3$, where A is selected from the group consisting of Sr, Ca, and Mg, and $0 \leq x \leq 0.5$.

3. (Original): The hydrocarbon sensor according to Claim 2, where A is Sr and $x=0.2$.

4. (Original): The hydrocarbon sensor according to Claim 1, where the electrolyte body is yttria stabilized zirconia with a porosity produced by sintering at a temperature effective to produce a density less than about 81% of theoretical maximum density.

Claims 5-11 (Canceled).